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The National Convention.

Before our next issue, the National Convention will convene. We hope all who can do so will attend, and trust that the meeting will be very interesting, and, as heretofore, entirely harmonious. We regret not being able to be present, but shall have a representative of the BEE JOURNAL there, to take a report of the proceedings for publication.

Those who have found fault with the former meetings of this Society, should by all means attend this one, and by their counsel and assistance, aid in making it as near perfection as possible. Those who do not attend have no reason to find fault with what is done—let them go, and see to it that no stone is left unturned which could make it more interesting and useful to the bee-keeping fraternity of the whole country.

As to the next place of meeting—the Northwestern Bee-Keepers' Association at its last session in Chicago invited the National to meet with it in joint assembly, and this we think would be hailed with delight by hundreds, but some may think otherwise. New York, Indianapolis, St. Louis, Toronto, Cleveland, Peoria, and other cities have been suggested. Let the matter be well canvassed, and the most suitable place selected—so that all may be satisfied, and the bee-keeping industry be best subserved.

The BEE JOURNAL does not desire to make any suggestion as to the location of the next Convention. It will be well satisfied with any that may be selected—feeling assured that the united wisdom of those in attend-

ance will be sure to make a good selection. No matter where it may be held, the BEE JOURNAL will do all in its power to advance its interest, and we shall attend if it be held at any other time than the first week in October.

In our next issue we shall give such of the essays to be read at the Convention as we can procure, and copies of them will be distributed there, so as to overcome some of the objections heretofore urged against their use. By this means those present will be able to read them over in advance, or note points as they are being read, for further discussion, and thus add largely to their usefulness.

The Monthly Bee Journal for 1883.

At the request of many who have heretofore taken the Monthly and Semi-Monthly BEE JOURNAL, we shall next year print a Monthly in this form and size, issuing it about the middle of each month, at \$1.00 a year, in advance; 2 copies for \$1.80; 3 copies for \$2.50; 5 copies for \$4.00; 10 or more copies at 75 cents each. An extra copy to the person getting up a club of 5 or more.

The Weekly is now permanently established, and will be continued as heretofore.

The Weekly and Monthly BEE JOURNALS will be distinct papers, each having its own sphere of operation and different readers.

We shall aim to make the Monthly BEE JOURNAL a welcome and profitable visitor to the homes of those who feel the need of a cheap, first class, reliable bee paper in pamphlet form—whose time is too much occupied to read a weekly, or whose means or requirements are more limited, and who can dispense with the routine matter more properly belonging to a weekly.

A Test for Honey.

Prof. T. Maher, of this city, sent us the following letter:

In the pamphlet on "Food Adulteration," page 53, Prof. Kedzie observes very truly: "Not only will sugar thus combine with lime, oxide of lead, oxide of iron, etc., but it will associate with itself sulphuric acid, and form a compound acid which comports itself very differently from simple sulphuric acid. This sucro-sulphuric acid forms a pretty large class of salts which are soluble in water, but especially soluble in solutions of sugar. Re-agents which will readily precipitate sulphuric acid and sulphates, *e. g.*, chloride of barium, will not precipitate the sucro-sulphates.

"Glucose has the same power as an acid substance as sucrose, forming a class of soluble glucosates. It will also associate with itself sulphuric acid, and form a class of gluco-sulphates. Undoubtedly a large part of the lime found in these starch-sugar syrups exists in the form of gluco-sulphate of lime."

I would only take exception to the sentence "chloride of barium will not precipitate the sucro-sulphates." For with a white solution of chloride of barium added to and stirred with a diluted solution of (glucose) clear syrup at 16c. a quart, obtained this morning from the corner grocery, I have just obtained a white precipitate of sulphate of barium which sufficiently accounts for the cheapness of this syrup, when I had to pay 18c. for a quart of dark New Orleans molasses, a dilute solution of which gave no precipitate when similarly tried with a dilute solution of chloride of barium, but remained perfectly clear, as did, on another trial, a solution of extracted honey from a 3-lb. can which I bought at 161 S. Water St., and thus branded on the outside: "Pure Honey from the apiary of H. D. Burrill, Bangor, Mich."

I made a fourth trial with coffee sugar from the same grocery store, but the solution remained clear and no precipitate took place. My wife declares that she will keep this small bottle of chloride of barium solution and will not fail to try all the molasses, sugar and honey which may come into our house; let alone the syrups which will of course be severely kept out; and why cannot every well regulated family thus be provided with such a small bottle?

Chicago, Ill., Sept., 1882.

As the determination of a simple and practicable detective for adulteration in sweets is a matter of the greatest importance to bee-keepers, grocers and families, we invited Prof. Maher to conduct a few experiments at the BEE JOURNAL office, which took place on the 20th inst.

The Professor produced a phial containing about 4 ounces of chloride of barium. "This," he remarked, "is a good article. It is necessary in all

experiments of this nature that the agent used as a detective be a pure article, else the result will often be unsatisfactory; therefore, in purchasing, we must visit the druggist or chemist whose reputation is above reproach."

The first experiment was upon a so-called pure article of "golden syrup," about one ounce of which was poured in a glass, to which was added about two ounces of water. This was thoroughly mixed by stirring, after which nearly two tablespoonfuls of the liquid barium were poured in. At first a small cloud or opaque discoloration occurred, after which it resumed its original color, while the Professor remarked that it was a very good article of syrup he was testing. He said, however, that the impurities (glucose) in the syrup would be precipitated to the bottom of the glass, and would be visible when the liquid had become quiet, which proved to be the case.

Test No. 2 consisted of a tablespoonful of Davenport "grape sugar" (glucose), dissolved in four ounces of water. Into this the liquid barium was poured, when the whole mass immediately assumed a clouded appearance, and upon becoming quiet a sediment settled in the bottom of the glass, apparently as much in volume as there was originally of the glucose, and which would indicate that the majority of the glucose was insoluble in simple water.

For test No. 3 a sample of honey was used that was sent to the BEE JOURNAL Museum by Mr. Wm. Hoge, about two years ago, which he claimed would not granulate, owing to some peculiar process by which it was treated. In this a slight effervescence took place, as though there was an acid in its composition being acted upon by soda.

Prof. Mahler was quite positive as to the efficacy of his test, and thinks chloride of barium will prove the simplest, cheapest and most delicate detective that can be used, and perfectly within the province of every man or family for all practicable purposes. Should it so prove, the Professor has well earned the gratitude of every honey producer in the country, and his experiments will result in much good.

A couple of years ago our attention was called to tincture of iron, as a ready agent for detecting adulterations in syrups and honey; but we

found its use impracticable, for, while it would discolor and sometimes blacken liquid honey, it could not be relied on to give a positive indication of the presence of glucose, nor, indeed, could the proportion of honey used in a mixture of any kind be determined. Hence, we have failed to appreciate any advantage to be derived from its use, but rather misapprehension and uncertainty.

Bee and Honey Show in Florida.

Mr. W. S. Hart, New Smyrna, Fla., wrote to the State Park Association, in reference to offering Premiums for a display of honey at the State Fair, and secured an offer of a premium of \$25.00 for the best display of honey in all departments of its production, and \$10.00 for the second best, together with a diploma for the first prize. The following extract from Mr. Hart's letter shows his line of argument:

Our industry is well worth fostering. Here in this little hamlet of New Smyrna, we have produced over forty thousand pounds of honey of the best quality this year. Most of it produced in three apiaries. I think this amount will be nearly or quite doubled next year. This amount collected, where a few years ago all this delicious sweet was allowed to waste, shows plainly that the summer breezes sweeping over our fair State, bear away thousands of dollars' worth daily of the purest and healthiest sweet known to man. By offering liberal premiums at our State Fair, for the products of the apiary, your Association will exert an immense influence toward saving this wealth to the State and at the same time help to bring within its border an intelligent and industrious class of people.

Wintering Bees.—The *Canadian Farmer* offers a prize of \$10 for the best essay on "Wintering Bees in Canada. The Canadian Bee-Keepers' Association awarded it to Mr. H. Clouse, of Beeton, Ont. We shall give it in the BEE JOURNAL soon.

The committee appointed to award the prize remarked as follows: "Regarding the essay we do not think it went sufficiently into details, but as far as it goes it shows evident care in preparing, and that the writer is a practical man."

The *Rural Canadian* adds: "It is a prize hard to award, for only the test of time can show who is the successful competitor. Many individual bee-keepers would gladly give \$10 each for a sure method of wintering bees."

Yellow Melilot or Sweet Clover.

We observe on page 616 of this issue, that Mr. Ed. Bertrand, editor of the Swiss *Bulletin d'Apiculture*, proposes to cultivate the yellow sweet clover as well as the white. It may be that in Switzerland the bees can obtain nectar from this variety, but we have never heard of its affording bee pasturage in this country. In portions of California, Texas and New York we have been informed it grows spontaneously, but the bees do not work on it. We have seen a few specimens of it growing in our locality, but always deserted by the bees. With us it blooms some two weeks sooner than *melilotus alba*, and would be quite desirable if a honey-producer.

**MISCELLANEOUS.**

Food for Queen Cages.—Speaking of the food used by Mr. I. R. Good and others in queen shipping cages, consisting of honey and sugar, the *Indiana Farmer* remarks as follows:

We have been using this kind of candy for several years with the very best results, and have called attention to the matter several times through the *Farmer*. In the fall of 1880, in answer to some inquiries we said: "Many of our friends seem to have difficulty in making a candy for queen cages which will carry them safely for any length of time without water. We make ours as follows and have not had a single loss during the season, from this cause. We have part of a barrel of granulated honey, by digging down in the center of which, that around the sides of the barrel becomes very dry. To some of this we add sufficient of 'C' sugar to make a very stiff paste or candy. We add sugar so long as it will hold together. 'A' sugar will not do so well as the grain seems too hard and dry, and seems more inclined to run, and daub the bees."

Does the Queen Lead the Swarm?—The *British Bee Journal* says:

There is an impression prevailing among the uninitiated that the queen of a hive leads off the swarm, but this is by no means the case with first issues, for, as a rule, the queen does not come forth from the hive until the greater part of the bees are on the wing. Another erroneous idea in existence is that the queen bee is the first to alight upon a branch or a bush, and that the bees congregate

about her, but the reverse is a fact. When a swarm begins to issue, if the bee-keeper will place himself on the shady side of the hive and watch the stream of bees which pour forth like an army through a gateway, he may see the queen come out, and if inclined to prove our assertions he may capture and cage her, and put her in his pocket while he watches the proceedings of the bees. When the throng is circling in the air he may imagine that the bees are searching for her, and will, perhaps, conclude that as they cannot find her they will return at once to the hive; but no, they will first congregate near a convenient tree or bush and make a great noise sufficient to attract the attention of her majesty if she were abroad, and then they will alight and form a cluster and wait for some minutes, to give her an opportunity of joining them. If now she be taken to them, she will join the mass and all will be well; if not, the bees, after a short time, will disperse and return to the hive. Now this kind of experiment has been so often proved that it may be taken for granted when a swarm of bees has alighted and afterward returned to the hive that the queen was not able to join them, or she would assuredly have done so.

Glucose from Rags.—The *Revue Industrielle* states that a German manufactory is turning out over a ton a day of glucose made from old linen rags.

These rags, which are composed of hard vegetable fibers, are treated with sulphuric acid which converts them into dextrine. The latter product thus obtained undergoes a washing with milk of lime, and is then treated with a fresh supply of acid stronger than the former, when the mass is at once transformed and crystallizes into glucose, of which confections, honey and jelly may be made. The process is said to be a very cheap one, and the glucose chemically identical with grape sugar.

The Harvest of the World.—From the London *Times* we clip the following summary of the harvest of the World:

As regards French wheat, the result is already known. Maize is good in 25 departments, and very good in two, as against good in seven departments only last year. Rye shows a similarly favorable contrast. Barley shows a slighter improvement. In Great Britain 414 inquiries have been sent to farmers, asking their opinion on the growing crops. The replies, taking 100 as representing an average crop, show the following result: Wheat, 92.2; barley, 95.4; oats, 105.1; roots, 107.1; potatoes, 96.4. This may be compared with last year's figures, which were as follows: Wheat, 90; barley, 110; oats, 60; roots, 80, and potatoes, 98. The wheat crop will probably be 10,000,000 quarters for consumption, leaving 14,000,000 quarters for which we shall be dependent on

foreign supply. Spain is the only country from which the reports are unfavorable.

In summarizing the result, the *Times*, says: "Never, during the time since these reports were collected has the harvest in the northern hemisphere been so good all round. We usually have had to report a deficiency either in Europe or America. This year there is absolutely none. The world has an overaverage harvest, the year is likely to be one of cheap abundance."

Preparing Bees for Winter.—The *Indiana Farmer* gives the following:

We should not lose sight of the fact that the most essential point in safe wintering is plenty of young bees. More can be done in the month of September to aid bees in preparing for successful wintering than can subsequently be done. The queen should be kept breeding all of this month if possible. Bees bred after this time are perhaps the only ones that survive the winter, therefore, it is of the highest importance that the queen should have plenty of room, to the end that the colony will be strong in young bees. When the season for honey gathering is over and the weather becomes cooler, bees will not rear brood, or but very little. If you have not already done so, examine each hive carefully and learn the exact condition in which it is, and if any are deficient in stores feed at once and in sufficient quantity to last them through the winter.

Peculiarities of Bees.—The *Gazette des Animaux* publishes the following about the sciology of bees:

It appears that the monarchies of bees, well-governed as they seem to be, are afflicted nevertheless by organized criminal classes—sneak-thief and highway robbers. Some of these robber bees go in strong bands to pillage and are able to storm and sack a hive. After the slaughter they carry all the provisions home. Some colonies of bees never work; they live entirely by robbery and murder. There are also sneak-thieves who creep unperceived into strange hives to steal honey. If successful they return afterward, with hordes of burglar bees, break open the honey-safes, and carry away the contents.

The Honey Harvest in Switzerland.—The *Bulletin d'Apiculture*, remarks as follows on the subject:

The season of 1882 will probably be counted as a bad one by our bee-keepers. The first crop was pretty good in some of the valleys, small in others and almost nothing in the cantons of Fribourg and Soleure, as well as in the Alpen Vaudoises. They write to us from Lausanne that their gathering is very poor, and that the swarms have been very few. We greatly fear the second crop, where they generally have one, will still be worse than that of July.

CORRESPONDENCE

For the American Bee Journal.

Wintering, the Season in England, etc.

SAMUEL SIMMINS.

While there is yet time, before the bees are prepared for their long confinement, allow me to suggest what appears to me to be the principal cause of the frequent heavy losses, which occur during the severe and protracted cold, to which some of your States are subject.

The all important and life-giving element, "fresh air," seems to have been lost sight of, and I believe that hives judiciously ventilated, without direct draught, will stand any weather, even should they have an excess of pollen, which some writers suppose to be the grand cause of wintering troubles.

Dysentery rarely occurs among my bees. Our winters are never so severe but what the bees can occasionally renew the air by their usual method of fanning; but with you the case is different, and it stands to reason that when the cold is so severe that they are unable to leave the cluster for many days in succession, the atmosphere must become foul, and, consequently, the health of the bees is materially affected, and then follows dysentery and generally the loss of the colony.

I do not mean to say that dysentery is always caused by the want of oxygen, but that its absence is the principal source of winter mortality with colonies well stored.

My idea is to give a gentle, continuous supply of fresh air, without permitting direct draught, and those intending to experiment in this direction will, of course, adopt the means most suited to their own style of hive. The season with us has been generally unfavorable; the only honey-flow occurring during the second week in August, when colonies in fair condition stored more than sufficient for winter. Previous to this the bees obtained just enough to keep the queens breeding, enabling me to increase to twice the number I had at the beginning of the year. I should have done better than this, but the weather was too windy and cool for the mating of queens; hardly one in five succeeded in meeting a drone, although I had a large number of the latter in my apiary.

I have come to the conclusion that drones are useless except for the one purpose of fertilizing queens. They consume a large quantity of honey. This year two of my strongest colonies contained not only their own drones, but, toward autumn, others from hives where they were being turned out, and when at last a few days of honey weather set in, these two made but little show, while others having no drones, were enabled to

store and cap sufficient for their winter consumption. During June and July, those having an average number of drones could not seal a single cell of honey, while even weaker colonies with none, managed to keep 2 or 3 lbs. capped over.

Drones that are not required for breeding are almost a triple loss to the bee-keeper. The same space of comb which produced these idle consumers would have given a larger number of working bees, who not only get their own living, but add to the wealth of the hive.

I do not think the drones are at all instrumental in ripening the honey. What can do this more effectually than the constant circulation of air created by the peculiar fanning motion kept up by the bees? Neither do I see how it can be supposed that drones are necessary to help keep the brood warm. We know that when there is sufficient honey in the fields to entice nearly the whole working force of the hive, the brood is partially deserted only during the hottest part of the day, when no danger will occur by its being so left. It cannot be said that the presence of the drones will liberate a larger number of workers, for it must always be borne in mind that they are produced only at the expense of a much larger number of actual laborers.

Rottingdean, near Brighton, Eng.

Bee-Keepers' Exchange.

Jottings on California Bee Topics.

W. A. PRYAL.

The honey season has closed and now the wise bee-keeper is working to get his bees to fill their hives with honey for the winter requirements. No matter how good the yield may have been at the regular season, the bees will, as soon as it is over and the short drouth is lasting, empty the greater part of the cells of the sweet liquid. This spell of no honey and indoor boarding commences as a general rule toward the middle of July and continues perhaps for some weeks. During its continuance all the drones are banished from the hives, never to be replenished till the following March. In this short time too the large force of workers that remained at the close of the last honey consume fully one-half of the supplies; and as there are but few flowers of any consequence, after July the wise apiarist has to manage his bees carefully to keep them from consuming the remainder of their stores. It is true that there are some flowers to be found at all seasons of the year in this climate, but where many bees are kept no one colony can manage to lay in anything like an adequate supply of winter provisions from these flowers, unless the bloom is abundant and the flow of nectar free and plentiful as it is some years. At this time, too, the queen ceases to lay eggs except in two or three frames; the bees gradually begin to grow less. So it is important for the apiarist to be attentive to the needs of the apiary at this season.

Just a little judgment will save him perhaps many a valuable colony of bees.

From five to fifteen pounds of honey will suffice to winter a colony in this climate, if the bee-keeper is only careful and watches them. A few ounces of honey fed to them at the proper time may take them through the worst part of the season, and from thence on they will be able to earn their own living.

My bees have gone through the "hard times" with the aid of a few pounds of honey, that was fed to them. The eucalyptus will soon be in bloom, and this feed with the juice they will "steal" from peach and apricot orchards, will provision them for the winter. In the middle part of February they may require a little more feeding, in fact, if they do not really require it, it is always a good plan to give them a few ounces every evening to stimulate the queen to greater exertions towards filling the combs with eggs so that a large force of bees will be ready for the first honey flow.

Orchardists in this vicinity do not complain of the bees as do their brethren in the lower part of the state. Their great annoyance is caused by birds, especially the linnetts. When a fruit is once pecked by a bird, it is no longer of any account and the neighborly fruit grower would sooner have the bees get the rest of it than his arch enemy the bird.

The latest reports from the honey section of the state say that the crop will be about a fourth of a crop. Still, though the crop is light it is of good quality, and the bee-keepers have made such material advances in knowledge, etc., during the last year, that they are demanding higher prices for their honey. No more do they intend to let speculators grow fat at their expense, and we hope they will succeed in their demands.

This county (Alameda) is not noted for its bee-keeping interests; it being more of a manufacturing, commercial, agricultural and horticultural county. As far as I know I am the only individual in it who has made any success of apiculture, and then only to a limited extent. No other person has an apiary "equipped" with the modern appliances like myself. In the adjoining county, Santa Clara, on the south, there are several successful bee-keepers.

I have, during this unfavorable year, taken 46 pounds of extracted honey from my hives; this is nearly half a crop. The honey is of three grades, corresponding to the season in which it was gathered. The first is of a dark amber, and of a fine flavor, being what we call eucalyptus honey; the second lot, which was taken during the principal honey flow, is of a pale amber, and is a fine article; and the last is a little darker than the second and nearly as good. There are none of the honey sages in the woods hereabouts that they have in the south, and consequently we do not obtain any of the peculiar honey they get down there; but still our honey sells as readily as does theirs. We get five or six cents per pound more for ours than

they do; not that we claim that ours is superior, but we are near a pretty thickly settled community, only a few miles from Oakland, the second city in the state, and only nine or ten miles from San Francisco. We can get a fair crop of honey any year, while lower down they cannot. We believe that just across the coast range of hills from us, in Contra Costa county, many a fine spot for an apiary may be found, and that during a season like the last, from 60 to 100 pounds of extracted honey per colony could be taken, and that 150 to 200 pounds could be obtained during a good year. When the craze for white or perfectly clear honey has somewhat died away, we will see the day when there will be as much honey raised in the northern portions of the state as there is now produced in the south. Take Shasta and adjoining counties where they have the "small" amount of 9 feet of rain every year—the lower counties hardly had 6 inches, we believe this year, say a foot anyway—(here we had only 17 inches)—the flowers grow in remarkable profusion and we have heard that bees do remarkably well there.

People in the east may begin to think that California bee-keeping is played out, but they are sadly mistaken, for it is only in its infancy. It is now only confined to a small section of the state while in a few years it will extend all over its vast surface—from Del Norte on the north to San Diego on the south and from the Sierras on the east to the sea on the west. Then when there will be a sure crop every year, the immensity of which was never known before, will the world look for its regular supply of the heavenly distilled sweetness from these shores; then will our apiarists have overcome the middlemen, and then will the industry be only second to our wine crop; and peace and happiness be the lot of every ardent keeper of God's grandest insect gift to man.

N. Temescal, Cal.

For the American Bee Journal.

Modern Breeding and Longevity.

EUGENE SECOR.

When I came to Northern Iowa, 20 years ago, a few of the early settlers kept a few "skeps" of bees. They had never heard of a Langstroth hive, nor of an Italian queen bee. The black bee was kept, either in a "log gum," as taken from the woods, or in a rough, unpainted box, made from native lumber. These men had never heard, probably, of putting bees in a cellar or cave, nor of covering them during the winter. At any rate, they did not practice it; yet they survived the rigors of those "old-fashioned winters." Not until the Italian bee, and the Langstroth hive were introduced, did we hear of such fatality among the bees. With the introduction of these came also the necessity, or at least the practice, of housing them in winter, until now, no modern beekeeper is fool-hardy enough to leave

the hives exposed to the elements while the thermometer is playing hide-and-seek among the twenties.

Many besides myself have undoubtedly asked themselves the cause of this apparent change. I say apparent change, because it may be that in those early times, when statistics relating to this industry were very meager, and bee papers almost unknown, that the losses were not noted, as they are now. And as old beekeepers used to "take up" all late swarms with new and tender combs, and never counted them as lost, that the per cent. of colonies taken through the winter may not have been greater than now. Yet we often hear old men say that "bees didn't use to die so;" and remembering, as we do, the terrible fatality of 1881, which nearly stripped the entire North of bees, it is worth considering whether or not our modern methods of rearing and keeping bees has anything to do with our losses.

It is clear to my mind that the Langstroth hive is too shallow for out-door wintering in a cold climate. That being true, and in-door wintering, or protection of some kind a necessity, do we comply with the needs of the case as to temperature, dryness, etc.; and if neglecting these, or other essentials, do we not weaken the constitution of the race and thereby invite disease and death?

Again, the old folks didn't start with one colony in the spring and expect to have ten in the fall. Their increase was by natural swarming. Are we not straining nature a little by our methods of artificial increase? It is so easy for the novice (and some who are not novices) to divide colonies, and thereby be able to make a big report, that ambition often gets the better of his judgment, and the consequence is that his colonies are constitutionally weak, his queens short-lived, and his real increase and profits small—unless he is in the supply business, and can make his customers believe that queens reared by the forcing process are just as desirable as those reared in full colonies, in the natural way, and in the proper season.

That high breeding—that is, breeding for certain characteristics not found in the native races—is opposed to longevity is proven by the history of our own race, and by the experience and observation of breeders of thoroughbreds and high grades among our domestic animals, and I see no reason that the rule will not hold good in insect life. If we breed for beauty of form or color, or for early maturity, or any other special trait and neglect to comply with certain laws tending to other and perhaps as important characteristics, such breeding will often be at the expense of the hardiness of the race and prove in the end disastrous.

Breed for color if you like, but do not neglect better traits. If it is beauty you want, remember "handsome is that handsome does." Breed for large bees if you wish—bees that have a proboscis like a rye straw—that can suck syrup from the bottom of a molasses barrel—but in so doing do

not make them so tender that we will have to raise the queen "on the bottle," nor take the workers to bed with us to nurse them through the winter.

If Vogel is correct in his theory, that the Italians are not a pure race, may not some of these losses be traced to that cause, for, if not pure, crossing with the black bee, instead of adding vigor to the latter would make them less hardy than either? For instance: my neighbors who were most unfortunate in losses in 1881, are men who have not infused any fresh blood into their apiaries for several years. My own, that stood the test better than any of them, had been improved every year by the addition of queens from abroad.

Now, the lesson which I wish to deduce from this is, that the cross of the Italians and black bees, to be beneficial, must be kept up, otherwise our bees degenerate to a condition worse than before the intermingling of the two.

The importance of thoroughbred drones is beginning to be appreciated. If a low grade bull is not fit to breed from, why is a hybrid drone, the tendency of whose offspring is to revert to the original type?

Forest City, Iowa.

Translated by A. R. Kokne.

Two Queens in One Hive.

JOHANN FELSWANN.

"Two queens in one hive is nothing new," says one; "it has happened with me, too." Certainly, such cases are not so very rare, and will be observed by every attentive bee-keeper, and if I essay to write about it, it is not so much on account of the two queens as on account of the accompanying circumstances, under which they were observed. No practical experienced apiarist will deny the existence of two queens in one hive occasionally, but the opinions as to the "why" of it, diverge very much. To enumerate all the different opinions of bee-keepers with reference to this subject would fill many pages, the study of which would lead to the conclusion that the occurrence of two fertile queens in one hive has not yet been sufficiently explained, and will remain so until by experiment the conditions are discovered under which an otherwise normal colony will suffer two queens in their hive.

Now, as to my case: It was on an afternoon in July, the day being very clear and bright; as it had rained the preceding night, everything was refreshed and the bees improved the opportunity to gather honey from the newly opened flowers. I had one very populous colony, which, in spite of all the chances there were, did not swarm; hence, on the day spoken of above I went to investigate the case. On removing the frames, I found in the first three newly-gathered honey, the fourth was one-third honey and the rest empty cells, cleaned and polished to receive eggs, which fact led me to suppose the queen near. Very carefully I removed the frame, and there

on the fifth frame, still hanging in the hive, I saw the queen in the act of laying. [In such hives the back is movable and frames are taken out one after the other from the back toward the front.—Remarks by translator]. Now, the fourth frame just removed I held still in my hands, and, as is my habit, I turned it to look at the side which had been toward the laying queen and behold, there was another queen and in the cells freshly-laid eggs. Two queens! Quite a surprise! Well, after examining the rest of the frames of brood and finding everything in the best of order, I put the frames back again in the same order they had been, with the two queens on their combs, for further observation.

The colony remained strong, had always much brood and furnished some honey, and went into winter quarters with the two queens. It wintered well; in the latter part of April I examined the colony again, but found only one queen.

The following remarkable points may be observed in this case:

1st. Both queens were in one and

Gleanings in Bee-Culture. Blister-Beetle Larvæ Attacking Bees.

Inclosed I send a few insects that infest the bees about this time of the year. I have found as many as seven on one bee, but mostly not more than one. I have never found them on queens or drones, and have therefore concluded that they come from the flowers when the bees are at work, though I have never found any on the flowers, after diligent search. If you can inform me in regard to them, you will greatly oblige.

J. P. M. RAINBOW.
Fall Brook, Cal., May 1, 1882.

The insects (Fig. 1) from J. P. M. Rainbow, Fall Brook, Cal., are the larvæ of some species of blister beetle, possibly of *Meloe barbarus*, Lec., which is a common species in California. These blister beetles are quite curious and interesting. The famous Spanish fly, which is commercially of so much importance, and which, when dried, forms the cantharides of the shops, belongs to this family. We have several species of these blister beetles,

they escape from the eggs, thousands of which are deposited in the earth by each female, at once crawl up on some flowering plant, like the *compositæ*, and as these latter are visited by bees, the active larvæ crawl upon the legs and bodies of the bees, and so are borne off to the hives. Seven of these, as seen by Mr. R. on one bee, is a serious burden, and must often overcome the bees. But this is not all. The larvæ leave the bees in the hives, and take to an egg diet, which they vary by eating honey, jelly and pollen. In this way they become a serious injury to the bees. As neither the drones nor the queens visit the flowers, these vesicant larvæ will be found on the workers only.

The other curious feature of these insects is there anomalous transformations, which were styled by M. Fabre, hypermetamorphosis. In most insects the metamorphosis is like that of our bees. We first have the egg, then the larva, then the pupa, and last the imago, or winged insect. In these blister beetles, we have the egg, then a degraded form, the one carried by the bees from the flowers, which is known as the triungulin (Fig. 1), then the second larval form, which has nearly the same shape as before, but the legs are much shorter, and now it is feeding on eggs, and the other good things of the hive. The next larval form is called pseudopupa, as it looks some like a pupa as it rests in the mutilated skin of the previous stage. The next stage is much like the usual beetle larvæ, or grubs, and then we have the pupa, and last the imago. Surely such a long development is worthy of a long name, and why not hypermetamorphosis? Some of the larvæ feed on the eggs, etc., of some of the wild bees, and others, as shown by Prof. C. V. Riley, in a most excellent paper on these insects, feed on the eggs of the Rocky Mountain locust.

That any of the larvæ feed on the roots of grass, as stated by Harris Packard and many others, is very doubtful.
A. J. COOK.

Lansing, Mich., July, 1882.

For the American Bee Journal.

Checking the Swarming Fever.

M. C. STEVENS.

Jas. N. Tucker's queries in regard to his swarm of Aug. 26th, induce me to give my practice with late swarms: 1st. Destroy every queen-cell. 2d. Return the swarm. 3d. Put on the upper story filled with sections furnished with starters. If there is any honey to be found they will go to work "with a will," and soon fill every section. This, at present prices, will be worth more than a good colony of bees. If no honey is coming in, they will be in a condition to winter with but little trouble, and without much risk; but if they are put in an empty hive, and no honey is coming in, they will have to be fed a good deal, and then, after one has done his best, the chances are slim for wintering. Besides this, the

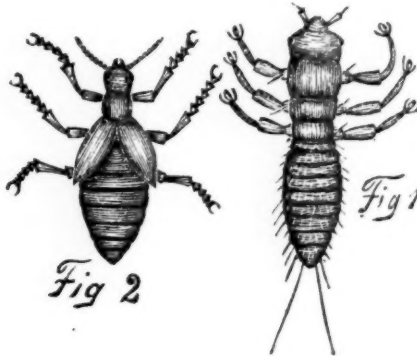


FIG. 1.—Triungulin, or first larva, the one carried by the bee to the hive. Length, 2 m. m.

FIG. 2.—*Meloe*, female, showing short elytra, or wing-covers, and large abdomen.

the same space between two combs; both in the act of laying. In all or most all cases heretofore reported, they have had their quarters in different parts, generally in extreme ends or sides of the hive.

2d. Both queens seemed to work harmoniously together for the well-being of the colony, whilst the rule is, that if they meet in one hive they fight until one is dead.

3d. A change of queens could not have been contemplated by the bees, in which case they rear another queen, because the old queen was only in her second year, and in her very best age, as proven by the condition of the colony before and after.

4th. Even suppose the bees meant to rear a queen, to either supersede the old one or swarm, then why did the old queen not swarm with part of the colony?

5th. The conduct of the workers is also to be considered, which not only suffered two queens in their hive, but seemed to treat them both alike.—

From *Illustrated Bienen Zeitung*.

all of which are as capable of producing blisters as are the green flies of Spain. Some of our species are very destructive, and when common do great damage. The old potato beetle, *Epicauta vittata*, used to be much dreaded in Ohio. I have seen our asters fairly covered with *E. atrata*, which is equally destructive to rape. These beetles have very soft bodies and long necks. Some of the species, those of the genera *Meloe* (Fig. 2), and *Hornia*, have very short wings. I often receive specimens of *Meloe angusticollis*, which is common in all of the Northern States, and is readily distinguished, especially if a female, by the very short wings and the enormous abdomen, which fairly drags with its weight of eggs.

But the strangest feature of these curious insects, and the one which more directly interests bee-keepers, is connected with the habits and transformations of the immature insects, or larvæ. These alone among beetles are, in a manner, parasitic. As Mr. Rainbow suggests, the larvæ (Fig. 1), when

parent colony will be reduced in numbers, and in all probability the drones will all be killed off before the new queen goes forth on her bridal tour, and hence she will return to the hive a virgin and worthless. The fate of the colony is then inevitable—the bees will dwindle to nothing before spring. Bee-keepers should awake to the fact that, in most cases, it is more profitable to take proper care of a few colonies, than endeavor to get a large increase in bees, which is always at the expense of the honey product. My advice is, in no case to allow a colony to cast more than one swarm. If a second swarm comes out, put them back as directed above.

Lafayette, Ind., Sept. 14, 1882.



Local Convention Directory.

1882. **Time and Place of Meeting.**
 Sept. 28—Norfolk, Ont., at Waterford, Ont.
 Elias Clouse, Sec.
 Oct. 3-6—North American, at Cincinnati, O.
 Dr. Ehrick Parml, Sec., New York City.
 5—Kentucky Union, at Shelbyville, Ky.
 G. W. Demaree, Sec., Christiansburg, Ky.
 7—Marshall County, Iowa, at Marshalltown.
 J. W. Sanders, Sec., LeGrand, Iowa.
 10—Tuscarawas Valley, at Newcomerstown, O.
 J. A. Bucklew, Sec., Clarksville, O.
 10, 11—Northern Michigan, at Pewamo, Mich.
 O. R. Goodno, Sec., Carson City, Mich.
 17, 18—Northwestern, at Chicago, Ill.
 C. C. Coffinberry, Sec., Chicago, Ill.
 18, 19—Southern California, at Los Angeles.
 J. E. Pleasants, Pres., Anaheim, Cal.
 21—Northern Ohio, at Norwalk, O.
 S. F. Newman, Sec., Norwalk, O.
 Nov. 1—New Jersey & Eastern, at New Brunswick.
 J. Hasbrouck, Sec., Bound Brook, N. J.

In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

Louisiana State Association.

The bee-keepers of St. Mary, Iberia, Vermillion, St. Landry, and St. Martin parishes met at Serrett's Hall, New Iberia, on Saturday, Sept. 2, 1882. W. R. Thompson, Esq., was elected President and J. D. Bedell, Secretary, *pro tem*.

W. R. Thompson stated the object of the meeting. Those present then proceeded to the election of officers with the following result: W. R. Thompson, President; Dr. Shaw, Vice President; Geo. E. Sonnemann, Secretary; Henry Steckler, Treasurer; E. Delmouly, Vice President for Lafayette Parish; J. D. Bedell, for St. Mary Parish; Louis Duchamp, for St. Martin's Parish; J. W. Jackson, for St. Landry Parish.

These Parishes embrace about 1,500 colonies, of which 905 are in frame hives, and the remainder are box hives and nuclei.

The next meeting will be held on Saturday, Oct. 7th, at Serrett's Hall, New Iberia, La.

W. R. THOMPSON, Pres.
 G. E. SONNEMANN, Sec.

Bulletin d'apiculteur.

Swiss Bee-Keepers' Convention.

The spring meeting of the "Societe Romande d'apiculture" was held at Fribourg, in Grenette hall on June 27th; 80 members were present; the President elect, M. A. de Dardel, congratulated the members on their having met this year in the rich center of Fribourg, already so far advanced in the culture of bees, that it has two more societies besides their own, one French and the other German, all three emulating each other in devising and adopting good methods; and, moreover, that among their own 268 members, 15 were foreigners, who showed, by joining them, the interest they feel by their work, not the least part of which is to regulate and facilitate the sale of honey; to find new markets, and throw all the light they can upon the frauds in the trade; he felt thankful with them that notwithstanding an unfavorable season of cold spells, northerly winds and rough weather of every kind, as many of them as had colonies on the plain, ready in time, had succeeded, during the few fine days at the last moment, the 11 days from the 27th of May to the 7th of June, in gathering at least an average crop; he also urged them so to co-operate with the promoters of the Swiss Exposition of apiculture at Zurich, that their own society should be well represented there in the two expositions, one of which would be permanent with "two empty specimens of each of the hives used by us, viz.: our summer hive for a colony in its highest development, and our winter hive for a colony in its most straightened condition, with all the instruments and tools used in both periods, and samples of honey and wax, classified by cartons, altitudes, times of gathering, and the plants on which the bees had fed. The other exposition, he continued, would be temporary, in September, and would receive colonies of bees of various races with hives, instruments, etc.

He was followed by Mr. L. S. Fusay, who, undaunted, as he said he was, by the ghost of the tax gatherer, proposed that the following questions should be printed and sent by mail to every one of their members and others engaged in bee-keeping, to be answered in September:

1. How many hives have you, movable or permanent?
2. How many kilogrammes of honey have you gathered?
3. What proportion of clover land do you cultivate, and what is your estimate of the proportion of same land is there in your country as compared with other cultures?
4. Same question for natural meadows?
5. What is the proportion in oak land?
6. Have you linden trees and chestnut trees?
7. Have you many fruit trees, and of what kind mostly?
8. What is the prevailing wind with you in the spring, and what kind of wind is it?

9. What is your altitude above sea level (in metres)?

10. What is your harvest time for honey?

11. Is your country flat, hilly or mountainous?

12. If mountainous, which way does it incline?

13. What is the character of the soil?

Information he said, thus collected, differed, and intelligently acted upon would not only increase the production of honey, but improve its quality, and so enlarge the sale of it that he would not be any more afraid of the tax gatherer than he is now of his competitors all around him. By teaching his neighbor he has added water and power to his own mill-race.

Mr. President Horner promised the co-operation of the Fribourg Society in answering these questions, and suggested the addition of a few other questions like these: To what cause do you attribute your success or your failure? What influence has the climate on your section of country?

After a prolonged discussion on the most efficient ways and means to have the questions reach their destination, be intelligently answered, and the answer conveyed safely, a committee was appointed to carry out the measure in full.

Mr. Ed. Bertrand, editor of the *Bulletin d'Apiculture* read a paper on the yield of honey. For a few years back he said, by means of hives permanently fastened upon scales, I have taken notes of the progress of my various crops in different locations, and I desire to communicate to you the results I have obtained, and the information to be derived from them. I have two of such colonies at some distance from my residence, and there I can take observations only when I go to visit them from time to time. At Nyon, my home, I frequently take notes every day. He said that almost invariably his crop of honey depends for weight upon the state of the weather during the 15 days preceeding May harvest. This year, at the end of March and beginning of April, the hive on the scales kept up its weight pretty evenly, the cherry trees were in blossom, then the plum trees, a few species of willows and the dandelion—after the 22d of April till the 10th of May, the weight decreased constantly, and yet the chestnut trees were blooming, the pear trees also, etc.; but the weather was rough, rainy, cold, from the north. The 11th, 12th and 13th of May show in my notes a daily increase of 350, 375 and 200 grammes corresponding to fine days and to the first flowering of the clover and the blue sage; our soil is gravelly and light. Again, from the 14th to the 20th of May, the diminution is constant, except on the 19th when the blow from the north gave place on the 20th to a southwest wind, the entire diminution from the 14th to the 20th in the evening was kilog. 1.775 (5½ pounds!) and thus on till the 16th of June when he ceased his observations to gather in his honey. I can tell that all my crop was the work of 11 days, during two of which nothing was

done. In these observations I have of course sought to take into account the influence of temperature, of the atmospheric pressure, of the direction of the wind, of the weather, and my table embraces all these records—the laws are known which rule over the secretion of nectar by the plants; but we do not know every thing, and there are anomalies, and cases which cannot be explained. A certain temperature is necessary, a certain heat also, a moderate atmospheric pressure, and a certain moisture in the air, these are the general laws. The dry winds from the north and northeast are very contrary, while the moist winds from the south and west are very favorable. The rays of the sun are not indispensable; for, in cloudy weather and even during the few hours preceeding a storm, I have seen the bees gathering enormous quantities of honey. During fine weather, the gathering may be abundant, very much so, but if the days continue hot and dry, the honey decreases. After a good rain, it is abundant but watery, owing doubtless to the nocturnal evaporation; a cooling of the temperature arrests the secretion of the nectar, and yet this secretion will take place when the temperature is relatively low, in the spring for instance. Cold nights have generally an unfavorable influence upon the days which follow, and even here we sometimes get good crops after cold nights not however, below 55 to 46° Fahr.

I know that the variations in the weight of a hive do not reveal all its inside working; the laying of larvæ increases or diminishes in importance; the bees also bring in water and pollen; they build their combs; working bees are lost. It is difficult to apportion its part to everyone of these factors; and yet, take it all in all, these observations on the scales are as amusing as useful for the conduct of the apiary—often the bees appear to be gathering and yet bring in nothing; and then an importance is given to bloom, which it does not everywhere deserve in the same degree. Thus, at Nyon, I rely no longer upon fruit trees, the acacia robinier, the linden, etc. I depend upon my meadows, the trefoil, the sago, and they do not disappoint me; I know that, with them, my colonies will be ready by the middle of May.

I can only speak for my locality; but I believe that the condition of many more in valleys is the same as mine. I know also, that, after hay harvest, I have nothing more to expect at Nyon; from the white clover, linden and buckwheat the bees do well. But when I shall have succeeded in getting up a field of melilot, yellow (honey lotus) as well as white, on some very poor land, I will then consider myself as a bee-keeper, almost always sure to succeed.

Commenting upon this paper, Mr. J. Jeker added that the Germans give up all idea of getting honey from their fall heath after a storm, so great is the influence exerted by electricity upon the nectar. He had also hives fixed upon scales, and, weighing a colony which had lost its queen three

days after it had been hived, he found that, from that time its weight had continually decreased, while other colonies with queens were increasing in weight, the queenless one was getting lighter every day.

Another paper was read by Mr. B. de Vevey, advising beginners on their treatment of drones, not to kill them by wholesale, but to be sure to keep a few hundred for every colony, in order that the purity of the mother be well provided for, otherwise she would be very apt to get off from the hive and never return, leaving it queenless, an unproductive expense, even if a few pounds of honey are saved by an injudicious suppression of the drones which are also needed for the erection of the large cells without which bees cannot get along.

Mr. J. Jeker stated his method of dividing colonies in frame hives and recommended to beginners to make up a colony not from one hive, but from two, taking the queen and young bees from the first and the cells with larvæ from the second; experienced keepers however, he said, make up small nuclei which they furnish with cells built up in a good colony.

Mr. B. de Vevey, stated his method of dividing a colony, by choosing his strongest colony, taking out of it the cells and larvæ, without the bees, placing them in an empty hive which he carried off to fill the place of a colony that is also carried off somewhere else, and the working bees of the latter, coming back to their wonted place, find the larvæ which they care for at once to get a queen.

As he invited criticism upon his way Mr. Ed. Bertrand remarked that it was contrary to admitted theory for old working bees thus to rear a queen.

The Rev. Father Philippe, Superior of the Cordeliers, explained his method of keeping his Italian bees pure: He waits for the psychologic moment when the bees begin driving the drones before them, a sure indication that the days of these are numbered, and he divides his colonies making a choice of such as he wants to breed from; the colonies which have queens gradually exterminate their males, while those which are queenless keep theirs, and these males of choice colonies will fertilize the new queens; although it happens sometimes that the queen is badly mated and thus brings out a mongrel set of working bees, still the male progeny is pure; at the time he thus operates, the hive swarms with bees, and as he divides only after harvest, his yield of honey does not suffer. He also described the compartment box which he uses to raise and keep a certain number of queens for use when wanted. The compartments are all small hives which he can put together when not thus occupied by queens.

President Horner said that he had devised such a queens' box—a wired frame divided into 15 apartments, each holding 15 cells; but he doubts the possibility of these queens being kept after hatching.

Mr. Ed. Bertrand replied that he had no experience with such; but that in America such boxes are used,

although the queens are there set free as soon as hatched—not being accepted however, by a colony, or even by a small nucleus, unless brought in within the half hour following their birth; that after a very few days the young queens become possessed of an imperious desire to get out; and finally that it is not probable that the young queens are fed by the bees, nor know how to feed themselves.

Mr. Fusay, in trying to obtain fecundity in queens while captive, had once fitted up in the upper part of a frame cages containing royal cells; the queens, he said, could go out into a space arranged above the cage, and into this space males were introduced; but the results were null; the captive queens after 7 or 8 days, were thinned, faded, and not received if presented to nuclei.

Mr. Ed. Bertrand presented the solar wax extractor of Leandri, improved by Dr. A. Dubini, costing 10 francs; it had been sent to be examined and tried, and the wax extracted with it was declared to be very pure, not burned in the least; it could only be used for small quantities, but saved much labor. Mr. Bertrand presented also the Peet queen cage, an American device for carrying and introducing queens: now being manufactured by Mr. P. Von Siebenthal.

Mr. Marmier presented an American smoker improved by himself; between the guard and the fire place he has fitted up an old carpet to shield off the heat; within the fire-box, a spring fastened to a grate presses upon the fuel and keeps it kindled; lastly two handles fitted upon the bellows facilitates it being held more easily with one hand.

The meeting adjourned at 5:45 p.m.
ED. BERTRAND, Secy.

This day of June 27th was well filled up; at 7:30 in the morning a number of bee-keepers were already in attendance at Carpenters' hotel, Fribourg, Vaud, Geneva, Neuchatel, the Bernese Jura were represented; the venerable Abbe Alois Ulrich, of Sion, always present at our meetings, represented the Valais; true to his promise, Mr. J. Jeker, of Lubingen, vice president of the Society of our confederate of the German tongue, was also present; the committee of the Fribourg Society was almost complete. After the introductions, hand shakings, and the exchange of news about the yield of honey, the entire company of pastors and curates, teachers and farmers, manufacturers and others, went in a body to the fine garden of the Cordeliers, situated upon a high terrace overlooking the Savine. The Rev. Father Philippe, Superior of the Convent, did the honors in a very pleasant manner. His colonies, mostly pure Italian, are located in three or four pavilions. Unfortunately the season has this year been very unfavorable in the Canton of Fribourg, and the hives contained but very little honey. A number of groups formed around the pavilions and a few competent members, among them the Father Philippe and Mr. Jeker, with a right good will, made

operations and demonstrations in response to inquiries addressed to them; after which discussions and the annual meeting was held at Greneth Hall.

The National Convention.

The North American Bee-Keepers' Society will hold their 13th annual meeting at Washington Park Hall, Cincinnati, O., across Washington Park from the Exposition building. Time, Oct. 3rd to 5th, 1882. First session Tuesday, 10 a. m., Oct. 3. We are encouraged to hope that this will be a very profitable meeting, as we are promised papers from, and the presence of, a large number of our most prominent bee-keepers both in the United States and Canada, and essays and implements of the apiary are expected from abroad to add to the knowledge imparted by the research and inventive skill and methods of our countrymen.

EHRICK PARMLY, Sec.

New York, July 12, 1882.

The Northwestern Bee-Keepers' Convention will meet at Chicago, Ill., on Tuesday and Wednesday, Oct. 17 and 18, 1882. The office of the American Bee Journal has been kindly tendered as a place of meeting. A cordial invitation is extended to all bee-keepers, and especially those of the Northwestern States, to be present. The meeting takes place during the last week of the Inter-State Industrial Exposition, to enable all to obtain reduced railroad rates. First session at 10 a. m. C. C. MILLER, Pres.
C. C. COFFINBERRY, Sec.

The Union Bee-Keepers' Association of Maryland, Virginia and West Virginia, will meet at Hagerstown, in the room of the County Commissioners, at the Court House, on Wednesday, Oct. 18, 1882, at 1 o'clock, p. m., the session to last two days. The Washington County Fair will then be in progress, which will give persons an opportunity to attend the exhibition. All persons intending to go will please drop me a card, so that I may secure for them half-fare rates. J. LUTHER BOWERS, Sec.

The fifth annual meeting of the Northern Michigan Bee-Keepers' Convention will be held at Pewamo, Ionia County, Mich., on the second Tuesday and Wednesday (10th and 11th) of October, 1882. Pewamo being on the D. & M. and H. & M. R. R., it will be accessible by rail. The members will do all in their power to make the meeting interesting.

H. M. ROOP, Pres.

O. R. GOODNO, Sec.

The Tuscarawas Valley Bee-Keepers' Association will hold their next meeting in Wilgus Hall, Newcomerstown, O., on Tuesday, Oct. 10, instead of Oct. 5th. This change is made in order to allow members to visit the National Convention at Cincinnati. J. A. BUCKLEW, Sec.

The bee-keepers of Boone Co., Ind., are cordially invited to meet at the office of Barton Higgins, in Lebanon, Oct. 9, at 9 o'clock, a. m., to complete the organization of the auxiliary County Bee-Keepers' Society. The bee-keepers of Hendricks county, Ind., are invited to be present. By request of the Committee.

The Marshall County, Iowa, Bee-Keepers' Association will hold its regular session at the Court House in Marshalltown on Saturday, Oct. 7, at 10 a. m. Subject for discussion, "How to prepare for wintering." We hope to have a good meeting.

J. W. SANDERS, Sec.

Vice President for Kansas.—Mr. D. P. Norton having peremptorily resigned, I hereby appoint Mr. S. J. Miller, of 314 Kansas avenue, Topeka, Kansas, as his successor to the Vice Presidency for Kansas of the N. A. B. K. Society.

A. J. COOK, President.

The Southern California District Bee-Keepers' Association will hold their annual Convention in Union Hall, Los Angeles City, Oct. 19, 20, 1882, during the week of the Agricultural Fair. The Convention promises to be of so much interest that no bee-keeper should miss it. Ladies are pressing invited to attend.

J. E. PLEASANTS, Pres.

The fall meeting of the Northern Ohio Bee-Keepers' Association will be held in Whittlesey Hall, Norwalk, O., Saturday, Oct. 21, commencing at 9 a. m. A full attendance is solicited, as it will be a meeting of more than usual interest. Principal subject for discussion: "How shall we winter our bees without loss?"

S. F. NEWMAN, Sec.

CLUBBING LIST.

We supply the Weekly American Bee Journal and any of the following periodicals, one year, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage is prepaid by the publishers.

	Publishers' Price.	Club
The Weekly Bee Journal,	\$2 00..	
and Gleanings in Bee-Culture (A. I. Root) 3 00..	2 75	
Bee-Keepers' Magazine (A. J. King) 3 00..	2 60	
Bee-Keepers' Instructor (W. Thomas) 2 50..	2 35	
The 4 above-named papers.....	4 50..	4 00
Bee-Keepers' Exchange (Houk & Peet) 3 00..	2 90	
Bee-Keepers' Guide (A. G. Hill).....	2 50..	2 35
Kansas Bee-Keeper.....	2 60..	2 40
The 7 above-named papers.....	6 30..	5 50
The Weekly Bee Journal one year and		
Prof. Cook's Manual (bound in cloth) 3 25..	3 00	
Bees and Honey, (T. G. Newman) " 2 75..	2 50	
Binder for Weekly, 1881.....	2 85..	2 75
Binder for Weekly for 1882.....	2 75..	2 50

Do not let your numbers of the BEE JOURNAL for 1881 be lost. The best way to preserve them is to procure a binder and put them in. They are very valuable for reference

SELECTIONS FROM OUR LETTER BOX

Saving Combs.—Do bees make any comb after August? I have been advised to take from each hive all frames with comb that bees cannot cover. 1. Is it wise to do so? 2. If I do, how can I preserve this comb until spring? 3. Will it injure the comb to fumigate it with sulphur to destroy worms? This is my first year's experience with bees; am much interested, but have had great trouble with worms in my weak colonies. My experience will, I trust, enable me to do better next year. JOHN H. BOSS.

Glenville, Ala., Sept. 13, 1882.

[1. It is better to remove all combs that the bees cannot cover, leaving those in the hive which are well filled with honey.

2. Put them in a cool, light room; or in a tight room where you can easily fumigate them with sulphur.

3. No; and for this purpose you can use empty hives, fitting the combs in nicely, closing all cracks, and with a good smoker charged with sulphur, fumigate them thoroughly from the entrance. If the bees do not cover all the combs, it will be no protection against moths to leave the extra combs in the hives, but rather destruction to the combs and the bees as well.—Ed.]

Poisoned.—I have two August colonies of bees that have done splendid work, and two July colonies that are perfect failures. They have dwindled to a few handfuls. One colony I gave a comb with eggs and larvæ, but they failed to rear a queen. In the other I fear the queen is worthless. 1. What shall I do with both colonies to save what I have? 2. Would it be best to consolidate them both with my strong colonies? 3. What is the trouble with the bees, when a dozen at a time may be seen upon the ground reeling around as if drunken, and apparently in distress? Bees in this quarter have swarmed late, but done remarkably well. We have had no rain here since the 8th of August, and, in consequence, flowers are dried up. Please answer the above questions and oblige

A BEGINNER.

Malvern, Iowa, Sept. 18, 1882.

[1 and 2. Unite them with the stronger colonies, removing their queens first. By this process you will strengthen the already good colonies, and will sacrifice nothing in doing so, as the July colonies would probably die if left to themselves.

3. Most likely it is the result of some peculiar food which is a destructive poison, and the bees come out of the hive to suffer and die.—Ed.]

Sweet Clover.—The middle of July I carefully prepared nearly two acres of land and planted buckwheat and Bokhara clover together on it. I used fully four pounds of the clover seed per acre. The buckwheat came up, but so far nothing is to be seen of the clover. The seed was sold to me by a trustworthy dealer. 1. Can you explain the cause of failure? 2. Will it likely come up yet? I am satisfied the pasturage is the great question for bee-keepers to solve, and am inclined to plant a good deal of sweet clover as well as some other plants, but this first attempt is discouraging. I had a novel experience with a young queen a few days since. I thought it time for her to begin laying and on taking out a frame, she being on it, I thought I detected in a cell near her one egg. I had to disturb the bees, they being clustered pretty thick over the spot. To my surprise she took flight. None of the bees were so much disturbed. Shortly afterwards I found her in the hive, and intending to build the nucleus into a colony, gave her another frame of bees and brood. Later in the day, wishing to be assured of her safety, I carefully examined the hive. When I first lifted out the frame on which I found her she seemed nervous and timid, but soon resumed her occupation of laying, although the noon sun was shining on her. The bees about her seemed to be quite as much interested in her work as I was. This conduct seemed singular in a timid young queen.

GEO. E. BOGES.

Clintonville, Ky., Sept. 19, 1882.

[1. We are yet in the experimental stage of cultivating sweet clover, and occasionally failure of germination is a problem we have not solved. Yours is the third case we have heard of, where the seeds failed to grow, and in the first two cases we knew the seeds to be fresh and sound. In one case, they were gathered in the vicinity of Chicago, and sowed at different times on the same kind of soil gathered from, and yet it did not grow. In both instances, however, they were sown broadcast during a spell of drouth, and, we believe, were not harrowed under. A gentleman of this city gathered some of the seed last season and sent to a friend in Nebraska, who planted it in March last and we are assured it has been in bloom for four weeks. We have planted sweet clover at almost all seasons, and in every method we could think of, and have never had it fail to grow; but had but one kind of soil to experiment upon—a low, blue clay.

2. Were the case ours, we would not despair of its growing, unless next spring fails to bring it up.

We have never had even a young Italian queen take flight from the comb; but it has been a very common

occurrence with young Syrians, even to the age of six weeks. They appear quite nervous and restless when the comb is disturbed.—ED.]

Moving Bees.—1. Will it do any damage to bees and brood to move them 60 miles by rail about the first of November, and should I cover the frames with wire-cloth or honey-board while in transit? 2. Is honey from goldenrod good for wintering bees? It has been a very poor season here for bees. W. N. HOWARD.

Lyndon, Vt., Sept. 18, 1882.

[It will do to move bees at any time, provided the weather is mild enough afterward to allow of their having a flight. So late in the season as you propose to move them would be too cold to allow of wire-cloth covering the frames. Use a honey-board over them, or a blanket over the frames and the hive cover on. It would be well to bore one-inch holes in opposite sides of the brood-chamber, and cover them with wire-cloth from the inside; this would afford ventilation enough. Never put the wire-cloth outside, where ventilation is the object desired, as the bees, when excited, will crowd into the cavity, and those behind crowd against and kill them, and thus defeat the very purpose you wish to accomplish.

2. If ripened and capped over, it is excellent winter food.—ED.]

September Swarm Doing Well.—Bees are doing well. My last swarm came out one week ago to-day. I gave them 3 frames of brood and honey, and 6 of foundation. At this date they are almost complete. From one pound of Dr. Tinker's golden honey plant seed, sowed Feb. 15th to April 15th, in best rich loam on lower foothills and bottom lands, not one stalk has appeared as yet. I have 59 good colonies of bees.

ASBURY MCKNIGHT.

Bible Grove, Ill., Sept. 16, 1882.

Cultivation of Sweet Clover.—About the culture of sweet clover you remark in the BEE JOURNAL of Sept. 6th, "the natural requirements of the seed are to some extent, or nearly wholly met by planting in late winter or very early spring when the nights are still frosty and an occasional severe freeze assists to rot and burst the hull," etc. I have been experimenting with sweet clover for three years, and the only success I have had in sowing was in spring, after all danger of hard freezing had passed. Early last spring there was a bountiful growth of young plants from seed dropped by the old ones, and a hard freeze killed every plant above ground. The young plants are quite tender. I sowed an acre in drills after all freezing was over, about time of corn planting, and judging from the result, I should say

that good new seed would grow as well as good seed corn, and if properly distributed, a pound is sufficient for an acre. It should be covered about an inch, and a plant to every square foot is ample. It is about the first green thing to be seen above ground in spring and is quite liable to be nipped by frosts. Its early and rank growth dwarfs and chokes out rival weeds, its rich and luxuriant foliage completely shading the ground. I have not tested it for pasture, but if stock like it and thrive upon it, it must be valuable for early pasture. Can you tell me how to save and separate catnip and hoarhound seed from the chaff to which it adheres "closer than a brother?" I consider them both excellent honey plants, especially as hoarhound blooms two to three weeks before sweet clover, and I never knew bees to desert it for something better. D. P. NORTON.

Council Grove, Kan.

[If sown in late winter, it will rarely ever sprout in time for the frost to kill it. We have sown it on the snow, and received good results. Again, were it necessary to sow in spring, it would not be so universally reproductive as it has always proven itself, growing and thriving for many years in succession if left to seed itself each summer and autumn, as has been the case in the vicinity of Chicago.

We have no information as regards saving and cleaning catnip and hoarhound seed, and quite agree with you in commending them.—ED.]

Five Hundred Per Cent.—I have just returned from the Rocky Mountains, and after viewing the magnificent and varied flora, of mountain, foothill and plain, and seeing no honey nor apiarian supplies at the great Denver Exposition, I regarded it as an outrage upon the beautiful "Centennial" State of Colorado. Our bees here are piling in the honey at a wonderful rate and I find a ready market at home for all produced. My bees have made for me this season five hundred per cent. upon their last spring's valuation. Am beginning to feel quite well acquainted with some of your correspondents from their frequent letters—and Heddon—I just naturally like him. JOS. SAUNDERS.

Reynolds, Neb., Sept. 17, 1882.

Honey Bound.—My 75 colonies of bees are all full below—no room for the queens to lay. Had I better extract two or three frames in each, and put the empty combs in the center? Some colonies have 10 frames of solid honey. H. M. MORRIS.

Rantoul, Ill., Sept. 18, 1882.

[Yes; the first favorable weather that comes. It would be much better had it been done before; but even now there is time to mature a liberal amount of brood before winter sets in, if it is attended to at once.—ED.]

Bee Lice.—I have seen such trouble as described by Wm. Glennon, on page 587 of the BEE JOURNAL, caused by a red spider-like louse, which affects the abdomens of pupa generally, but sometimes larvæ. Get a piece of pupa brood 5x6 and examine. Sometimes large patches are infested; at other times only a cell or two in a place.

H. L. JEFFREY.

Washington Depot, Conn.

[The louse to which our correspondent refers is probably *Branla cæca*, which will be found fully described in "Cook's Manual," page 268, or, perhaps, *Meloe barbarus*, a delineation of which is given in this number of the BEE JOURNAL, on page 614. We do not think anything of this kind was the trouble with Mr. Glennon's colony. The bees were, from some cause, unable to lay in ample stores, and destroyed the defenseless to save the vigorous. The queen may have been unprolific previous to honey flow, or the bees lacked energy and industry.—ED.]

Protracted Drouth.—I commenced the season with 20 colonies, most of them in fair condition, but 2 or 3 very light, these I soon brought up by giving them frames of capped brood from strong colonies. I always aim to get my colonies uniform as early as possible in the spring; bees did nothing in March and next to nothing in May. The season was cold, dry and backward, fruit trees blossomed the last of May and first of June, but they seemed to secrete very little honey; red raspberry and white clover yielded very little honey, I had to feed my bees with frames of honey kept over from last season, or I do not believe I should have had half a dozen colonies left alive. About the middle of July most of my colonies had not an ounce of sealed honey, and many of them it seemed had hardly enough to last them over night; but they were strong in bees and brood. The booming time finally came the last week in July and first in August. It was during sumach bloom, and lasted about ten days. Most of the time being favorable for the bees and they improved it, for during the time they filled all spare room in the brood frames, some of the outside frames they sealed solid to the bottom, and also filled 173 two-pound boxes, or 350 lbs. of box and 100 lbs. of extracted, all nice white honey, and all collected in about 10 days, besides what was stored in the brood frames, which must have been twice as much more. Since sumach has gone the bees have barely made a living, but they are at work some on goldenrod now, and bid fair to obtain ample stores for winter. I kept back swarming as much as possible by letting the swarms return when they came out. I clip all my queens' wings, and remove 2 or 3 frames of brood and replace with empty combs or foundation. These frames of brood from two or more hives I unite with bees and all, and

from other colonies. After a day or two I introduce a laying queen, and they very soon make good strong colonies. My increase was from 20 to 30, with a few nuclei for queen-rearing. I do not claim to be a scientific bee-keeper, as I make it only a secondary business, farming being my principal occupation. I get 25 cents a pound for nearly all of my honey, and a good share of it is sold right at my door. We have had one of the most severe drouths this season that I ever knew. From the 19th of July to the 10th of September we had less than half an inch of rainfall, and most of the time the weather was very warm, with drying winds. Nearly all vegetation has dried up except in low, swampy places. Many animals have suffered for want of food and water, and the poor honey bee with the rest. We had a fine, welcome rain last Monday, over 2 inches of water falling, for which we feel thankful.

R. DOWNS.

Naugatuck, Conn., Sept. 14, 1882.

Sugar Syrup for Wintering.—Some experienced bee-keepers say that white sugar syrup is equally as good as honey for wintering bees. If so, why is it not advisable to extract all the honey late in the fall, and insert empty combs in the brood department to be filled with sugar syrup by the bees for winter use? If this were done, there would not be likely to be enough pollen stored to harm the bees and the syrup would, I should think, be more economical than honey for bee feed. Has this mode been sufficiently tested to determine its feasibility?

J. MCKINSTRY.

Nelson, Ill.

[Many bee-keepers have advocated and adopted the practice of extracting closely in the fall, then feeding sugar syrup for winter stores, with very satisfactory results.—ED.]

Honey Mulberry.—Bees are doing very well here for the last few days, but are storing but little honey in boxes, their time being principally occupied in filling empty spaces in the brood chambers, where the brood has hatched out. This has been a poor year for honey in this section. May, June, July and August is the time when bees store nearly all their surplus honey here. From the 1st of May to the 10th of June was so cold and wet bees did nothing; then came a drouth which lasted till the 10th of July, during which time nearly all the surplus honey was stored that we have taken this season. Since that time it has been too wet until the 1st of this month, and it seemed to take a week or 10 days' dry weather to renew the secretion of honey in the blossoms which had been so long and repeatedly drenched with rain. Dry weather, if not protracted too long, is most propitious for the secretion of honey, more especially in the river bottoms. As there has been a good deal said about negro bee-keepers, I can say I am acquainted with 6 or 7 negroes who are keeping bees, and own from 2 to 100 colonies, some of whom are

realizing large yields of honey, and are making it quite as profitable as their white brethren who keep bees in the same style—that is, in old log and box hives. A young man who has 17 colonies at my apiary, and myself, are the only persons in all my acquaintance who keep bees in movable comb hives, but several speak of transferring next spring. I had a talk with an old bee man who lives near Longview, Tex., who told me he had the best honey plant extant. He calls it the honey mulberry, and says it grows to the usual size of the common mulberry. He promised me some sprouts from it. I would like to have your opinion of this plant as a honey producer. 1. Do you know any plant by this name? 2. Do you know of any other species of mulberry that is valuable as a honey plant? 3. Are hybrid bees more irascible than the blacks? Do virgin queens very often meet with drones whose hives are a mile away, or is it in exceptional cases?

B. L. CLEMENTS.

Queen City, Tex., Sept. 17, 1882.

[1. We do not know any such shrub or tree.

2. There are two or three species of mulberry, but none especially valuable for honey, though all yield more or less.

3. If Italian queens are mated with black drones, they are much more irascible than the pure blacks; if black queens mate with Italian drones, then the traits of disposition are most likely to be reversed.

4. They do so very frequently, unless they are very numerously surrounded with drones.—ED.]

A Partial Report.—So far I have obtained 990 lbs. from my 17 colonies spring count besides increasing to 38. They are hybrids. The season up to July 1st was cool and unfavorable but since that time there has been an abundance of bloom. I consider Alsike clover the best of honey plants.

F. A. BOHL.

Summum, Ill., Sept. 16, 1882.

Solidago.—Please say what the accompanying plant is? I have never seen bees on it, but I am told they do visit it.

W. P. TAYLOR.

Fitzroy Harbor, Ont.

[It is a solidago, to which family goldenrod also belongs. We have seen bees gathering honey from this species this fall.—ED.]

Amber Syrup for Wintering.—Will it be safe to feed bees syrup made from early amber sugar cane, for winter use?

JAMES F. JOHNSON.

Salem, Mo., Sept. 17, 1882.

[We have never known of its having been tried, but doubt its utility for that purpose; however, it is worthy of a trial with one or two colonies.—ED.]

Not So Bad.—Bees are doing very well so far this season. Have taken to date 9,191 lbs., mostly extracted; had 69 colonies in the spring. I have increased to 100. P. LOUCKS.

Kingsburgh, Cal., Sept. 9, 1882.

[Nearly 140 pounds per colony spring count, and 80 per cent. increase, is not such a disastrous failure as might have occurred. In former years anything like such a yield would have been reckoned first rate.—ED.]

Good Fall Honey Crop.—The fall honey crop is very good. Comb honey is selling readily to our grocery men at 25 cents per pound. A. J. COOK.

Lansing, Mich., Sept. 21, 1882.

Bees in Canada.—This has not been a good season for bees in Canada, the spring was so remarkably cold, they hardly got honey enough to keep themselves alive till basswood bloom. Since that time they have done well, but swarming was very late (the end of July and through August), which is very unusual. I lost some swarms, as I did not watch for them, thinking swarming time was past. I have increased my stock from 3 to 9. I am the only person in this township that I know of who keeps Italians, and only one of my young queens mated with a black drone, so that I have been fortunate in only having one colony hybridized.

HENRIETTA F. BUTLER.
Campbellford, Ont., Sept. 13, 1882.

The Jackson, Mich., Fair.—Yesterday I visited the Fair at Jackson. The apiarian exhibit was quite small, compared with the one at Toledo, and what there was had not been put up in a way to call attention. Some extracted honey in jelly cups and combs made in tumblers was about all besides the apiarian supplies. Bee-keepers have no reason to complain of not being able to sell their honey, when they make no effort to show it. Consumers of honey look at "supplies" with curiosity, but at honey with a desire to taste it. We should endeavor to attract the eye, gratify the desire for the beautiful, as well as to please the taste.

E. B. SOUTHWICK.
Mendon, Mich., Sept. 21, 1882.

Beaver County, Pa.—Such a season as the past has never visited this county. Heretofore we have almost always obtained more or less surplus honey. Bloom was plentiful, but appeared to secrete no nectar. The poor bees have been diligent, and on the wing from morn till night, but made no progress at all. I know of but few swarms, not over 20 besides my own; I had about 18 natural swarms, and for the life of me I cannot see what made them swarm, as they had no honey. I bought a black colony which cast a swarm; I then transferred them, and there was not a pound of honey in the hive. I cannot imagine why they swarmed. 1. What is the difference between a tested queen and

a dollar queen after her progeny appears, and they possess the requisite number of bands? 2. I send you a sample flower that the bees work on from morning till night; it is a fall flower, and grows from 7 to 8 feet high. What is it?

COL. R. WALTON, Vice Pres.
Industry, Beaver Co., Pa.

[1. As you propound the question, there is no difference. Fairly stated, there is just as much difference as exists between a doubt and a fact.

2. The plant specimen is from Dr. Tinker's famous golden honey plant.—ED.]

A Ton of Honey.—I commenced in the spring of 1882 with 26 colonies in movable frame hives; have increased mostly on the nuclei system to 85, all good colonies now; extracted over 300 lbs. of honey from clover and basswood; have worked since for increase and comb honey. I have over a ton of honey, and what I call a fair increase, over 3 from one. I have transferred 40 colonies for neighbors, all of which have done well—thanks to Mr. Heddon for progressive transferring in the BEE JOURNAL of July 12th. I have transferred 18 colonies on that plan—it is just immense. No more combs, brood and honey, nailed, clasped, tied and smashed in frames for me. My success in increase and honey (which means money) was through the aid of the welcome BEE JOURNAL, of which I hope to be a lifelong subscriber. S. McLEES.
May, Mich., Sept. 20th, 1882.

Satisfied.—My BEE JOURNAL comes every week, freighted with items new and spicy, adapted to bee-culture. It refreshes our memory on things old and wakes us up to modern ideas. Long may its editor live to publish the BEE JOURNAL, and tell us how to manage the "blessed bees."

HENRY TILLEY.
Castle Hill, Me., Sept. 18, 1882.

The annual meeting of the Mahoning Valley Bee-keepers' Association will be held at Berlin Center, Mahoning County, in the town hall on Friday and Saturday the 19th and 20th of January, 1883. All bee-keepers are invited to attend and send essays, papers, implements, or any thing of interest to the fraternity. A full attendance is requested of all who are interested. In fact, the meetings will be so interesting that you cannot afford to miss them. We expect a lecturer from abroad on the evening of the 19th.

LEONIDAS CARSON, Pres.

Bee Pasturage a Necessity.—We have just issued a new pamphlet giving our views on this important subject, with suggestions what to plant, and when and how. It is illustrated with 26 engravings, and will be sent postpaid to any address for 10 cents.

THE AMERICAN BEE JOURNAL

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The American Express Company money order system is the cheapest, safest and most convenient way of remitting small sums of money. Their rates for \$1 to \$5 are 5 cents; over \$5 to \$10, 8 cents. They can be purchased at any point where the company have an office, except Canada, and can be made payable at any one of the company's 4,000 offices.

For safety, when sending money to this office get either a post office or express money order, a bank draft on New York or Chicago, or register the letter. Postage stamps of any kind may be sent for amounts less than one dollar. Local checks are subject to a discount of 25 cents at Chicago banks.

Premiums.—Those who get up clubs for the Weekly BEE JOURNAL for one year, will be entitled to the following premiums. Their own subscription may count in the club:

- For a Club of 2,—"Bees and Honey," in paper.
- " " 3,—an Emerson Binder, or "Bees and Honey," in cloth.
- " " 4,—Apiary Register for 50 Colonies, or Cook's Manual, paper.
- " " 5,—Cook's Manual, in cloth, or the Apiary Register for 100 Colonies.
- " " 6,—Weekly Bee Journal for 1 year, or Apiary Register for 200 Col's.

Two subscribers for the Monthly will count the same as one for the Weekly, when getting up clubs for the above premiums.

Honey and Beeswax Market.

OFFICE OF AMERICAN BEE JOURNAL,
Monday, 10 a. m., September 25, 1882.

The following are the latest quotations for honey and beeswax received up to this hour:

Quotations of Cash Buyers.**CHICAGO.**

HONEY—I am paying 7c. for dark and 9c. for light extracted.
BEESWAX—Choice lots are worth 25c. here; bright yellow, 24c.; dark to good, 17c-22c.

AL. H. NEWMAN, 923 W. Madison St.

CINCINNATI.

HONEY—The market for extracted honey is very satisfactory. We have received within the last three weeks more than 200 bbls., principally from Louisiana, Mississippi and Florida, and the demand exceeds our experience and expectations. We have sold more than ever at this time of the year. Florida furnishes a honey which equals our Northern clover, and excels all the Southern honey I have had so far. There is some call for comb honey, but we have had no arrivals yet of a choice article. Comb honey brings 16c-24c. on arrival; extracted, 7c-10c. BEESWAX—Firm at 20c-25c. per lb.

CHAS. F. MUTH.

Quotations of Commission Merchants.**CHICAGO.**

HONEY—Choice white comb honey is steady at 18c-20c. Some extra nice 1 lb. packages have sold at 22c. No demand for dark combs. Extracted honey in kegs, barrels and casks, 9c-10c. Demand better than for months past.

BEESWAX—25c. for prime yellow; dark 18c-22c. R. A. BURNETT, 165 South Water St.

CLEVELAND.

HONEY—Sells very readily in 1 lb. sections at 21c-22c. for best white, and 19c-20c. for 2 lb. Second grade, 1 lb. 19c-20c. Extracted is selling very slowly again, and some arrivals in bbls. we have been unable to place, asking 11c-12c. Extracted in tin pails has sold slowly at 14c.

BEESWAX—25c-28c. A. C. KENDEL, 115 Ontario Street.

SAN FRANCISCO.

Included in this week's receipts was one lot of 10 tons amber extracted, free from granulation, which was purchased prior to arrival. Half of it has since been resold at 84c., for shipment to Europe. The market is firm but rather quiet.

We quote white comb, 18c-20c.; dark to good, 12c-15c. Extracted, choice to extra white, 84c-94c.; dark and candied, 74c-8c. BEESWAX—28c-30c.

STEARNS & SMITH, 423 Front Street.

ST. LOUIS.

HONEY—Plentiful and dull. Comb lower, at 16c-18c—latter for choice white clover in small packages; strained in round lots at 7c.; extracted in cans at 9c-10c.

BEESWAX—Sold fairly at 27c. for prime. E. C. GREER & Co., 117 N. Main Street.

NEW YORK.

HONEY—No quotations reported.—ED.
BEESWAX—The supply is moderate and prices held about steady, though very little doing. Western, pure, 27c-27½c.; Southern, pure, 28c-29c.

D. W. QUINBY, 105 Park Place

BOSTON.

HONEY—Market active. We quote ¼ lb. combs 30c. per lb.; 1 lb. combs 22c-25c.; 2 lb. combs 20c-22c. Extracted, in half bbls., 12c-14c.

BEESWAX—Prime quality, 25c. CROCKER & BLAKE, 57 Chatham Street.

We will send Cook's Manual in cloth, or an Apiary Register for 100 colonies, and Weekly BEE JOURNAL for one year, for \$3.00; or with King's Text-Book, in cloth, for \$2.75; or with Bees and Honey, in cloth, \$2.50. The Monthly BEE JOURNAL and either of the above for one dollar less.

Sample Copies of the AMERICAN BEE JOURNAL will be sent free to any person. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

The Apiary Register.

All who intend to be systematic in their work in the apiary, should get a copy and commence to use it.

For 50 colonies (120 pages).....\$1 00
" 100 colonies (220 pages)..... 1 50
" 200 colonies (420 pages)..... 2 00

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable ones.

Examine the Date following your name on the wrapper label of this paper; it indicates the end of the month to which you have paid your subscription on the BEE JOURNAL.

Advertisements intended for the BEE JOURNAL must reach this office by Saturday of the previous week.

We will send sample copies of the BEE JOURNAL to any one who will distribute them to bee men at Fairs. We will also send some large colored posters to enable them to get up clubs. Write to us and say how many copies you wish and we will send them post paid. See our premiums for clubs on another page.

The BEE JOURNAL is mailed at the Chicago Postoffice every Tuesday, and any irregularity in its arrival is due to the postal employes, or some cause beyond our control.

Constitutions and By-Laws for local Associations \$2.00 per 100. The name of the Association printed in the blanks for 50 cents extra.

When changing a postoffice address, mention the old as well as the new address.

Preparation of Honey for the Market, including the production and care of both comb and extracted honey. A new pamphlet of 32 pages. At the last meeting of the North American Bee-Keepers' Society, we were appointed on a committee to prepare instructions on the Exhibition of Bees and Honey at Fairs; this is also added to the above. Price, 10 cents.

Ribbon Badges, for bee-keepers, on which are printed a large bee in gold, we send for 10 cts. each, or \$8 per 100.

Hundreds of clergymen, doctors and others have used Kendall's Spavin Cure with the best success.

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THE AMERICAN BEE JOURNAL is the oldest Bee Paper in America, and has a large circulation in every State, Territory and Province, among farmers, mechanics, professional and business men, and is, therefore, the best advertising medium.

THE BRITISH BEE JOURNAL**AND BEE-KEEPER'S ADVISER.**

The BRITISH BEE JOURNAL is published monthly, and contains the best practical information for the time being, showing what to do, and when and how to do it. It is edited and published by

C. N. ABBOTT, Bee-Master, School of Apiculture, Farnham, Southall, London.

We send the Weekly AMERICAN BEE JOURNAL and the British Bee Journal, both for \$3.50 per annum.

GERMAN CARP,

For stocking ponds, Goldfish, Silver Pearl, Fringe Tails, Golden Orfes, etc. For particulars, address

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